

CLAIMS

1. A remote control system of a home network, comprising:
a device control processing unit as a local CP (control point) for
5 including a home network view having a list of plural controlled devices,
each device state, a subscribed event list, a service request list, etc.,
processing a possible service request, changing a service request from a
remote access service unit into at least one UPnP message or changing a
message from a UPnP device into a notification request in case of need
10 and transmitting it to a remote access service unit.
2. The remote control system of claim 1, wherein the device
control processing unit includes a local CP.
- 15 3. The remote control system of claim 1, wherein the device
control processing unit includes each local CP for each remote terminal.
4. The remote control system of claim 1, wherein the device
control processing unit has local CP per device kinds.
- 20 5. A remote control system of a home network, comprising:
a remote access service unit for receiving a user's web request
from a remote terminal service unit; transmitting it to a device control
processing unit by converting it into a corresponded service request

according to contents of the web request; and transmitting a web response for a pertinent remote terminal to the remote terminal service unit by having a service view consisting of a set of at least one web document.

5 6. The remote control system of claim 5, wherein the service view consists of a set of at least one web document connected with each other such as a home network device state and control page, a device list page and a user option page.

10 7. The remote control system of claim 5, wherein the remote access service unit includes a profile database, determines a service view of a remote access service according to service related information recorded in a profile database and provides various remote access services to a user and a remote terminal with reference to the service view.

15 8. The remote control system of claim 7, wherein the profile database includes information such as user's preferred device list, request event list, performance of the remote access terminal such as a screen size and a kind of an input device, provider network bandwidth and
20 providable service, user access priority list by devices.

 9. The remote control system of claim 5, wherein the remote access service unit includes a home network collision solving mechanism performed in a home network level, a device level, an operation level or

performed in mixing a device level with an operation level.

10. The remote control system of claim 9, wherein the home network collision solving mechanism performed in the operation level
5 solves a collision problem according to a user priority rank, a remote access contact order and an operation order.

11. The remote control system of claim 9, wherein the home network collision solving mechanism is stored in the device access
10 database in the profile database.

12. The remote control system of claim 11, wherein the device access database includes a device access priority table recording priority
per users about all devices in the home network.

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13. The remote control system of claim 11, wherein the device access database includes a sharing type table by device's operations indicating access possibility from other users in performing of a specific operation supported by a device.

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14. The remote control system of claim 11, wherein the device access database records an access authority table by priorities about operations supported by each device.

15. The remote control system of claim 11, wherein the device access database records an access authority table by users about operations supported by each device.

5 16. A remote control system of a home network, comprising:
a remote terminal service unit for performing mutual communication as web request/response with a remote terminal by having a built-in web server; transmitting a web request from a user to a remote access service unit and transmitting a web response as a web document
10 form generated with reference to a recent service view from the remote access service unit to a remote terminal.

17. A remote control system of a home network, comprising:
a device control processing unit operated as a CP (control point)
15 for mutual operation with plural devices and controlling the devices according to a service request from a remote terminal;
a remote access service unit for notifying the device control processing unit of the service request from the remote terminal; and
a remote terminal service unit for converting the user request from
20 the remote terminal into a service request, transmitting it to the remote access service unit and transmitting a response from the remote access service unit to a pertinent terminal.

18. The remote control system of claim 17, further comprising:

a setup module for initializing the device control processing unit and the profile database of the remote access service unit; and

a communication module having asynchronous notification functions such as e-mail, voice telephone and SMS, etc.

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19. A remote control system of a home network, comprising:

a local home network in which plural devices are connected;

a remote terminal for controlling the local home network in a remote place; and

10 a remote access server having a function as a local CP (control point) and transmitting/receiving request/answer to/from the remote terminal.

20. The remote control system of claim 19, wherein the remote
15 access server is included in a local home network or an Internet provider server.

21. The remote control system of claim 19, wherein the remote
access server acquires state information of plural devices connected to the
20 local home network with reference to a device list to be controlled, a
subscribed event list and a service request list; and controls the plural
devices by processing request/response with the remote terminal.